visible that day in the finder, the moon being too bright. Still the clock was driving perfectly the Orbitsweeper, as it did yesterday evening with -13° C. I should be very glad if another astronomer had observed the nebula with a spectroscope at the same time. The position of the small star preceding the nebula was found:—

Dec. 7 Dist. = $136''.9$ (4) Pos. angle = $281^{\circ}.9$ (4)

Pos. angle of elongation of the nebula $p = 132^{\circ}.3$ (2)

Length of major axis = $5''.7$ (1)

Strasburg, 1879, *Dec.* 8.

Observation of General Catalogue (Supplement) No. 6,000.

By Lord Lindsay.

This object is marked "Planetary?" in the Harvard Zones (*Annals*, vol. i. p. 67). Assuming that this query indicated that the object was seen as a planetary nebula by W. C. Bond, D'Arrest observed it at Copenhagen, but found it quite stellar in appearance. At the suggestion of Mr. Dreyer, it was observed prismatically at Dun Echt on December 10 by Ralph Copeland. The spectrum is quite continuous and offers no peculiarity; the object is therefore not a nebula at all. It is identical with D.M.+0° No. 4741, 8·8 mag.

Note on Mimas and Hyperion. By A. A. Common, Esq.

Attempts were made in 1877 and 1878, with an 18-inch Reflector, to observe *Mimas*, but without success; on two nights it was thought to have been seen. *Hyperion* was seen on several nights.

With the 36-inch telescope *Mimas* can be fairly well seen when some $3''$ or $4''$ from end of ring; one attempt to follow it up to conjunction has failed, but under better circumstances it may perhaps be done. The more certain observations (which seem to indicate that the Ephemeris published by Mr. Marth in the *Ast. Nach.* No. 2273 is some one and a half or two hours late) are given below, with some measures of *Hyperion*.

Moonlight that had no effect on *Mimas* utterly obliterated *Hyperion*. This was particularly noticed on the night of November 22.

Sept. 25. At 9.15 G.M.T. *Mimas* was seen E. and expected to be going out from ring; it was, however, found to be approaching, and at $10^h\ 50^m$ appeared to be much closer. The *n.f.* conjunction was estimated to take place at $11^h\ 40^m$, as it could not be followed after $10^h\ 50^m$.

October 10. At $10^h\ 0^m$ to $10^h\ 15^m$ *Mimas* was seen E. a little S. of end of ring; a deposit of dew on the small mirror preventing further observation.

Nov. 13. At $9^h\ 15^m$ *Mimas* was seen E. and apparently half-way between *Tethys* and end of ring. At $9^h\ 24^m$ it was well seen below a line joining *Tethys* and end of ring.

Nov. 22. At $8^h\ 44^m\ 40^s$ *Mimas* was seen W., estimated to be exactly under *Tethys* and $5''{\cdot}96$ from end of ring. At $9^h\ 25^m$ *Tethys* had moved to a place about half-way between *Mimas* and end of ring; and at $9^h\ 40^m$ *Tethys* was nearly up to conjunction and *Mimas* some $3''$ or $4''$ distant from ring.

HYPERION 1879.

	G.M.T. h m s	Pos. ° ′	Dist. ″	Value.	Remarks.
Oct. 21	10 58	271 46	252·77	2	This was measured, as decided motion was observed from a star near.
	11 0	102 45	87·18	1	Noted as something like *Hyperion*.
Nov. 11	8 22	270 54		2	Night fine, but windy.
	8 23	270 48		2	
	8 27		253·55	2	
	8 32	270 40		2	
	10 16	271 14		2	
Nov. 13	7 20	267 8		1	Fine night.
	7 23 30		203·3	1	
	7 25 5	267 1		1	
	9 7	268 25		3	
	9 8 15	268 13		2	
	9 10 30	268 7		2	
Nov. 15	8 26	256 44	102·52	1	Very fine night.
	8 31	258 15	103·62	2	
	8 32	256 16		2	
	8 44	257 42		3	
	8 49		99·38	4	
	8 50	259 28		4	
	8 49 30		99·85	4	
	10 34	252 50		1	
	10 36 30		92·47	1	

	G.M.T. h m s	Pos. ° ′	Dist. ″	Value.	Remarks.
Nov. 15	10 40		95·45	2	
Nov. 18	8 9 5	105 7	108·49	2	Night very fine, with heavy dew.
	8 11 50	103 48		3	
	8 13 25	103 33		4	
	8 15		106·28	2	
	8 43 50	102 24	110·99	3	
	8 47 15	103 33	109·9	3	

Nov. 1879.

Observations of the Satellites of Mars. By A. A. Common, Esq.

The following observations of the satellites of *Mars* were made by me at Ealing, near London, with an Equatoreal Newtonian Reflector of 36 inches aperture. In all cases the full aperture was used with powers of 220, 240, or 380. The great disparity in light between the objects to be measured necessitated some modification of the ordinary micrometer which it would perhaps be better to describe.

Instead of using a bar in the field, behind which the planet could be placed by moving the whole micrometer, as was done by me at the last opposition, this was done:—The spider webs were taken out of an ordinary double parallel-wire micrometer and the springs taken away from one frame. This frame was then free to slip easily to and fro, and as far in as the nut was adjusted to. Attached to this frame, somewhere near where the wire would be, was a light arm, carrying at the end a small disk of steel just large enough to hide the planet, and so placed as to slide central over and along the position wires up to the intersection of these by the fixed wire supplied to replace the wire taken from the frame spoken of. These position wires were of silk fibre, two in number, and placed at a distance apart equal to about 12″ of arc. The other frame carried a similar wire, and was movable in the ordinary way. The idea with this arrangement was to place the intersection of the fixed wire with the position wires central on the planet and then bring up the steel disk to hide it, adjust the position wires at an equal distance on each side of the satellite, then bring down the movable wire, and so get a measure of position and distance at one operation. But in practice it was found that the fixed wire interfered somewhat with the proper placing of the others on the planet, and it was not always done in this way.

Measuring positions in this way with double wires, where the objects are comparatively close (considering the width of the parallel wires), although suggested or recommended to be done by Professor Hall, in his account of the discovery of the satellites,